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B. ANTHONY STEWART

ECHOES OF THE WILD WEST—BOTH ON AND IN FRONT OF TV—ENLIVEN A NEW YORK APARTMENT

While Chief Flying Leaf watches a "wild west" cowboy on the television screen (Bulletin No. 4), his wife sews a final bead on an Indian war bonnet. The style of headdress is borrowed from the Plains Indians by this Mohawk steel worker of Canadian birth and New York adoption. Like many Mohawks from across the border, he does "high iron" work on New York skyscrapers. The chief also turns extra dollars by making such Indian craft as tom-toms, bonnets, and moccasins in his spare time.

Bulletin No. 1, December 8, 1952

Ancient Bonn Takes on New Role as Capital

THE United States is setting up its largest embassy in one of the world's smallest capitals—Bonn, capital of the Federal Republic of Germany (West Germany).

In a new modernistic skyscraper (one of Europe's largest buildings), 650 Americans and 1700 Germans will carry on the work of the embassy when it takes over from the United States High Commissioner on ratification of the Allied-West German peace contract ending the occupation.

Chapel Dedicated to American Statesman

"Little America," a few miles down the Rhine from Bonn, will be home to the American employees of the embassy. This new residential development built by the United States includes apartments, a shopping center, theater, community center, and the new Stimson Memorial Chapel.

Last summer the High Commissioner dedicated the red brick chapel of American colonial architecture to the memory of the late Henry L. Stimson, who served as Secretary of State and as Secretary of War. Separate services are held in it for Protestants, Catholics, and Jews.

The German employees of the embassy will live in two housing projects which the United States has built for them in the Bonn area.

The signing of a "peace contract" with the Federal Republic of Germany not only opens the door for the end of occupation and an independent West German state. It also establishes a once-sleepy university city on the banks of the Rhine as the newest of Europe's capitals. Bonn succeeds Berlin as the mailing address of free German government.

Bursting at the seams, Bonn holds German parliament and power today mainly because Berlin is isolated in a Soviet sea. Also, Bonn, being one of Europe's oldest garrison towns, had many barracks which could be used to house Germany's new government. Military bosses from Caesar to Hitler had built them over the centuries.

Attracted Tourists Between Wars

Bonn's history began more than 2,000 years ago when Roman legions built a fortified encampment by the Rhine. It was named Bonna, or Castra Bonnensia. Centuries later a nobleman of Cologne, exiled from his home city for political reasons, built a castle from its stones and surrounded the town with walls and towers. Then it became the center of power of archbishop-electors, medieval rulers of the surrounding valley. From the gray stone cathedral, begun early in the 11th century, five towers point skyward. The central one, towering 315 feet, is a landmark in the valley.

Bonn has been besieged again and again during Europe's wars. After World War I, Allied occupation forces were quartered in the city. By that time, Bonn had become a tourist center and a busy river port with a population of more than 100,000.

More than half of Bonn's buildings were destroyed during World

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HENRY R. O'BRIEN

(SEE BULLETIN NO. 5)

THE MARKET PLACE OF CHIANG MAI FLOWERS LIKE A GARDEN WITH THE GAY HUES OF MANY PARASOLS

Outdoor stands do brisk trade in fruit and vegetables. Meat and cloth are sold in the cooler shelter of the buildings. Chiang Mai, Thailand's second city, is a thriving market center for the surrounding region. Above the palm trees which rise like feather dusters beyond the market roofs towers Doi Sutep, 5,500-foot mountain.

Balmy Breezes Lure Yachtsmen to Bahamas

AS sure a sign of coming winter as the V's of wild geese flying south was the flotilla of American yachtsmen which set out across the warm Gulf Stream from Miami in November to join the first fleet cruise of the season in Bahama waters.

Fleeing winter in the United States, visitors arrive by yacht, ship, and plane. Catering to them is the most important business of the islanders who have tried and abandoned many enterprises during the past 450 years. Pineapples and piracy, sugar and sisal, rum-running and wrecking—all once thrived in the islands for a time, and all gradually declined.

A Haven for Pirates

Spaniards, the first Europeans to claim the Bahamas, took their profits in the form of slaves. They eventually wiped out the Lucayans, the natives who had greeted Columbus when he landed on San Salvador in the Bahamas in 1492. In the 17th century the British, first settlers of the group, shut their official eyes when swashbuckling pirates used the islands as lairs from which to prey upon Spanish treasure fleets bound home with Inca riches. Among the freebooters who sailed out of Nassau under the skull and crossbones were Sir Henry Morgan, and Edward Teach, called "Blackbeard."

Conversion and hanging eventually wiped out the evil of piracy, and the British colonists became planters. The islands once enjoyed a thriving trade in pineapples. The popular fruit was shipped to Baltimore in Chesapeake Bay sailing schooners and pungeys (large-sized Chesapeake canoes). When Hawaii went into the pineapple business the Bahamas lost their market. Their trade in "pines" has almost died out, although a few are still being exported. Island cane fields supply sugar for local consumption (illustration, next page).

A blight has all but wiped out the once-flourishing sponge industry. Tomatoes, which have been grown in a small way for many years, are now an up-and-coming export crop.

Blockade-running Brought Wealth

The abolition of slavery in the Bahamas in 1838 ended agricultural prosperity in the islands. It was no longer profitable to raise cotton and the big cotton plantations fell into decay. For a time sisal and pineapples bolstered the export lists and then these gave way to citrus fruits and tomatoes.

A prosperous era for the Bahamas opened with the American Civil War when the islanders reaped riches running supplies from England to the Southern ports closed by the Union blockade. Similar wealth came to the islands during the prohibition period in the United States, in the 1920's and early 1930's.

Nowadays, island captains who once commanded rum-runners may serve as deep-sea-fishing guides. So teeming with game fish and exotic sea creatures are the waters around the Bahamas that the National Geographic Society, in its new *Book of Fishes*, devotes many pages to angling

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War II, although the havoc was by no means as complete as in other large cities of the Rhineland.

The cloisters of the cathedral were battered; Beethoven's home was hit by a shell; and the university was badly damaged. Yet most of the town's historic relics and treasures remained intact.

Bonn has become the center of a federal enclave, functioning much as does the District of Columbia in the United States. The *bundeshaus* (Germany's parliament) holds its sessions overlooking the river in a building which was once a school.

Politicians, foreign emissaries, stonemasons, and carpenters jostle through the crowded streets, building toward the day when occupation headquarters officially will become embassies and Bonn will stand as a free capital under the German flag.

NOTE: Bonn may be located on the National Geographic Society's map of Europe and the Near East. Write the Society's headquarters, Washington 6, D. C., for a price list of maps.

For additional information, see "Berlin, Island in a Soviet Sea," in *The National Geographic Magazine* for November, 1951; "Airlift to Berlin," May, 1949; "With Uncle Sam and John Bull in Germany," January, 1949; "Uncle Sam Bends a Twig in Germany," October, 1948; "What I Saw Across the Rhine," January, 1947; and "War's Wake in the Rhineland," July, 1945. *(Back issues of the Magazine may be obtained from the Society's headquarters at 60¢ a copy, 1946 to date; $1.00, 1930–1945; $2.00, 1913–1929. Earlier issues at varied prices.)*

See also, in the GEOGRAPHIC SCHOOL BULLETINS, December 10, 1951, "Divided Berlin Is a Battleground of Ideas."

DRAWN BY THEODORA PRICE AND IRVIN E. ALLEMAN

ON THE RHINE'S LEFT BANK STANDS ANCIENT BONN, EUROPE'S YOUNGEST CAPITAL CITY

Bulletin No. 3, December 8, 1952

White House Mystery Tunnel Exposed as Myth

ATTENTION, cloak-and-dagger fans: One of your favorite secret passageways is missing!

This is the underground escape tunnel leading from the White House to the banks of the Potomac River. This subterranean outlet was supposed to have been constructed at the command of Dolly Madison as a result of her terrifying experience when she fled the burning capital during the War of 1812. The tunnel also figured prominently in Civil War legends of a plot to kidnap President Lincoln.

Washington's Swampy Site Discourages Tunnels

The recent renovation of the White House, completed last April, failed to reveal a single trace of any such subterranean burrow. The White House architect, Lorenzo S. Winslow, believes the origin of the myth is a perfectly commonplace brick sewer which has been in existence since the early days of the famous residence. This durably constructed conduit, which is only about four feet in diameter, is still being used for its original purpose.

Conspirators looking for underground passages in Washington today will have to content themselves with modern, well-ventilated corridors running underground between government buildings. The swampy land on which much of the national capital stands does not encourage the building of subterranean tunnels.

In many parts of the world, in locations where limestone, chalk, or sandstone abound, numerous buried galleries exist. Some were wrought by nature, some are of human construction. They have been utilized by man for a great variety of purposes. In the Maryland hills near Washington, a "secret underground Pentagon" is being constructed to substitute for the Armed Forces headquarters building in case of war.

The city of Nottingham, England, built on rock, is said to be laced with underground passages, the most famous of which is Mortimer's Hole. Through the Hole, King Edward III and a group of his friends slipped into a locked castle to capture Sir Roger Mortimer, the Earl of March, who had been in league with the Queen Mother, Isabella, to usurp the powers of the crown.

French Cave Proved Deathtrap

A number of French towns—Saint Macaire on the Garonne River, Alban in Tarn, Bourg-sur-Garonne, and Aubeterre, to mention a few of them—stand above an intricate network of underground corridors and rooms which often provided a safe retreat for entire populations during the ravages of the Hundred Years War in the 14th and 15th centuries.

However, the four-mile cave of Lombrive near Ussat in Ariege, France, proved to be a deathtrap rather than a place of refuge for the unfortunate Albigenses. Several hundred members of this sect went into hiding there in the 14th century, hoping to escape religious persecution. Their enemies sealed up the entrance to the cave and imprisoned the Albigenses, all of whom died of starvation.

For the most part, underground caves and passageways have been

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adventure off Bimini, game-fishing center and site of the famous Lerner Marine Laboratory.

Yachtsmen in ever-increasing numbers are finding the 630-mile sweep of the Bahamas between Florida and Hispaniola a cruising man's paradise of snug harbors and clear water caressed by warm winds. And there is always the chance that the thrust of a spade into the sand might uncover fabulous pirate treasure. Many yachtsmen have bought property in the islands, individually or as members of clubs. They may, in time, become the new colonists, men who will make of this former battleground of adventurers a peaceful tropic heaven for vacation and retirement.

The Bahamas include about 20 inhabited islands and many uninhabited ones ranging from mere rocks to sizable chunks of land. The group has a land area of more than 4,000 square miles. Nassau, capital of the Bahamas, stands on New Providence Island, in the north-central area of the group. The estimated population (1948) of the Bahamas is a little over 80,000. Some 30,000 of these live on New Providence.

NOTE: The Bahamas are shown on the Society's map of Countries of the Caribbean. See also "Flamingos' Last Stand on Andros Island," in *The National Geographic Magazine* for May, 1951; "*Carib* Cruises the West Indies," January, 1948; "Bahama Holiday," February, 1936; and, in the GEOGRAPHIC SCHOOL BULLETINS, January 14, 1952, "Fragile Flamingo Threatened with Extinction."

FRED ARMBRISTER

NASSAU'S MARKET OFFERS BAHAMA SHOPPERS PALM-LEAF BROOMS (LEFT), BASKETS WOVEN OF PALM LEAVES, AND HUGE BUNDLES OF CURVE-STALKED SUGAR CANE

Bulletin No. 4, December 8, 1952

Television's Towers Now Encircle the World

TELEVISION is pacing off new paths of communication over the face of the world with twenty-league boots.

Only a quarter of a century ago, the first crude silhouettes appeared on glass screens in London, New York, and Washington. This year natives of Nigeria in west Africa may see a television show.

At latest count, seventeen countries other than the United States have television transmitters on the air. The list includes England, France, Germany, Italy, Denmark, the Netherlands, the Soviet Union, Spain, Cuba, Sweden, Switzerland, Czechoslovakia, Canada, Mexico, Brazil, Japan, and Argentina.

Earth's Curve Limits TV Signal

As the United States lifts its television freeze and opens the way for more than 2,000 stations in this country, at least 13 additional nations are planning TV tests. Nigeria and Morocco, the Dominican Republic and the Island of Cyprus, Thailand and India are among them.

Unlike radio, a television broadcast is limited by the fact that the earth is round. Television's signal can reach only a short distance beyond the visible horizon—perhaps 60 miles, or 20 leagues, at best. Then it shoots off into space. In conquering new fields, television's towers are rising from deserts and jungles, seacoasts and mountaintops.

Coaxial transmission lines—hollow tubes carrying electronic impulses at the speed of light—span the United States. Above ground, 107 reflector-topped microwave towers zigzag between New York and San Francisco. Both systems carry television programs to local transmitting stations. Both have been seriously proposed for sending television programs around the world.

Curiously enough, it was a telegrapher at Valentia, Ireland, at the European end of the first transatlantic cable, who first set the stage for modern television in 1873. He discovered that the element selenium transmitted more or less electricity, depending upon the amount of light falling on it.

TV Will Be Available to More Than Half United States

Using that early observation, made even before Marconi sent the first wireless radio message, inventors in many countries began laying the foundations for today's television industry. Men had dreamed for centuries of being able to project their vision afar. Slowly, over 50 years, the dream became reality.

More than half the people in the United States will be within range of television under the recent air-wave allocations of the Federal Communications Commission. Much higher percentages of population are already able to receive TV programs in such small, densely populated countries as England and the Netherlands. Within the coming year, the Voice of America estimated recently, as many as 25,000,000 people in other countries will see TV regularly.

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a friend to man rather than his enemy. From Bible times, when Elijah took refuge in caves, to the days of World War II when Britain set up complete subterranean hospitals, man has felt that underground, at least, he has a chance to escape the vengeance of his oppressor.

NOTE: The location of the White House is shown on the Society's Pocket Map of Central Washington.

For additional information, see "The Caves of the Thousand Buddhas," in *The National Geographic Magazine* for March, 1951; and "Lascaux Cave, Cradle of World Art," December, 1948.

J. BAYLOR ROBERTS

REPAIRS HAVE ROBBED THE WHITE HOUSE OF ITS MYSTERY, BUT NOT OF ITS BEAUTY

Beyond the gleaming White House and the tall shaft of the Washington Monument, the Potomac River flows down to Chesapeake Bay. According to a legend, disproved by recent renovation, a tunnel under Washington's parks connected the Executive Mansion with the riverbank.

The Book of Fishes—1952 Edition—Fresh from the Presses

Now available to schools, libraries, and also to individuals over the world is the National Geographic Society's long-awaited new edition of *The Book of Fishes*, edited by Dr. John Oliver La Gorce. The handsome 340-page volume is designed to appeal to novice and expert alike, and it opens a fascinating new world to those who have never wet a fly or cast a plug. Not being published for financial profit, it can be obtained at cost.

For teachers and school librarians, the carefully indexed book is noteworthy for its lifelike color paintings and color photographs of 236 North American species of fish and other aquatic life. Each species is fully described in an accurate, non-technical biography. In addition, 15 profusely illustrated articles recount various strange and interesting aspects of the watery world and its inhabitants—both food and game fish. More than 3,000 advance orders have been received.

The Book of Fishes may be ordered only from the National Geographic Society, Washington 6, D. C. $6.50 in United States and Possessions; elsewhere, $6.75 in U. S. funds. Postpaid.

Thai Prosperity Lightens Dark Asian Scene

THAILAND (Siam) is using every possible modern means to increase the prosperity that marks the kingdom as a bright and tranquil spot on the troubled map of southeast Asia.

Among the important projects which are bringing the country up to date is the dredging of the Chao Phraya River. This improvement will give Krung Thep (formerly called Bangkok), the capital and largest city, a port capable of handling big ocean-going ships. At present, ships which draw more than 17½ feet cannot come upriver to the capital. Dredging will cut the depth of the 20-mile channel to the sea to 28 feet and allow vessels of 10,000 tons to reach Krung Thep.

Premier Kidnaped from American Dredge

The dredging is being done under contract by a Netherlands firm, and a large quantity of American engineering equipment is being used. The seagoing dredge *Manhattan* was towed all the way from the east coast of the United States to take part in the operations.

The *Manhattan* was the scene of the most dramatic phase of an unsuccessful revolt against Premier Pibul in the summer of 1951. Men of the Thai Navy who led the uprising boldly kidnaped the premier from the dredge during the elaborate ceremonies marking acceptance of the vessel, which was a gift from the United States under the Economic Cooperation Administration program.

The kidnaping was carried out with the courtesy and calm typical of the country, under the very eyes of thousands of spectators. However, it was not a success. When the warship on which the premier was held prisoner was sunk by loyalist gunfire, he escaped his captors by swimming to the bank of the Chao Phraya.

The premier heads the government under the young King Bhumibol Adulyadej. The king was born in 1927 in Cambridge, Massachusetts, while his father—half brother to the then-reigning King Prajadhipok—was studying medicine at Harvard.

Bhumibol Adulyadej succeeded his brother, Ananda Mahidol, when that young king was assassinated in 1946. A regency ruled the country while the new king finished his education in Switzerland. He was crowned in 1950, with elaborate traditional ceremonies.

Nearly Equals Colorado and Wyoming in Size

Bhumibol Adulyadej is held in the greatest reverence by his 18,000,000 subjects. The presence of the king in Thailand is considered a lucky omen, bringing peace and prosperity to the nation. The king has spent much of his life in Western countries, particularly Switzerland.

Thailand has an area of 200,148 square miles, nearly as large as that of the states of Colorado and Wyoming combined. The majority of the Thai people live in the basin of the Chao Phraya River, an area about the size of Missouri.

The great fertility of this agricultural region and the thrift of its

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Television is finding strange and wonderful uses. A submarine sunk in the English Channel was found by an underwater "eye" last year. Surgeons in New York City may watch a delicate heart operation taking place in Los Angeles, California.

Customers can walk into a London bank and see their balance sheets on a television screen, although the files are kept twelve miles away. Factories, arsenals, atomic-energy laboratories, and electric-power plants have put cameras to work as silent, unblinking watchmen. The Army, the Navy, and many universities and schools are teaching classes by television, foreshadowing the day when mass education in the nation's living rooms may be possible and practical.

NOTE: For additional information, see "Your New World of Tomorrow," in *The National Geographic Magazine* for October, 1945.

HAUSSLER

TV TRUCKS TAKE UP A STAND TO SHOOT REAL-LIFE ACTIVITIES AT NEW YORK'S RADIO CITY

In the early days of television, these trucks attracted crowds wherever they rolled. Performers often were "innocent bystanders" instead of today's well-paid professional actors. Television made its first public appearance in the United States at the New York World's Fair in 1939.

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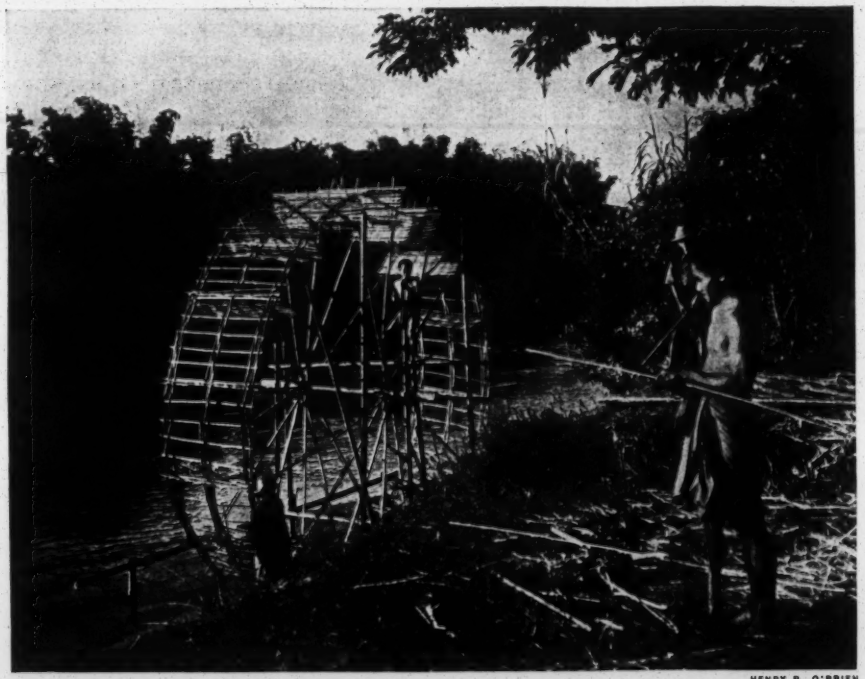
people place Thailand in the front ranks of the world's rice-exporting nations.

Thailand also exports tin, rubber, tungsten, and teakwood. This last durable and beautiful timber is floated down Thailand's rivers from forests in the northern part of the country (illustration, inside cover). It is moved to the river front by elephant power.

NOTE: Thailand is shown on the Society's maps of Asia and Adjacent Areas, The Far East, and Southeast Asia.

For additional information, see "Pageantry of the Siamese Stage" and "Scintillating Siam," in *The National Geographic Magazine* for February, 1947; "Ancient Temples and Modern Guns in Thailand" (10 photographs), November, 1941; and "Land of the Free in Asia," May, 1934.

See also, in the GEOGRAPHIC SCHOOL BULLETINS, November 27, 1950, "U. S. Arms Scheduled for Thailand (Siam)"; "Siam Is Set for Returned King's Coronation," April 24, 1950; and "Siam May Trade Rice for Railroads," January 10, 1949.



HENRY R. O'BRIEN

THAI FARMERS FASHION A WATER WHEEL FROM STALKS OF THE VERSATILE BAMBOO

Although Thailand is adopting many Western inventions, these ancient devices for irrigating fields and gardens still turn with the flow of rivers in the north of the country. Bamboo, one of the most useful plants of the tropics, forms the wheel. As the current turns the wheel, bamboo cups around the rim dip water from the stream and pour it into troughs which lead it to the fields.

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